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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,652	01/23/2002	Wolfgang Anderheggen	Bayer 10,222-WCG	7866

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EXAMINER

KUMAR, PREETI

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/055,652

Applicant(s)

ANDERHEGGEN ET AL.

Examiner

Preeti Kumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Claims 1-22 are pending. Claim 1 is independent.
2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10103029.0, filed on 1/23/2002. Should applicant desire to obtain the benefit of foreign priority under 35 U.S.C. 119(a)-(d) prior to declaration of an interference, a translation of the foreign application should be submitted under 37 CFR 1.55 in reply to this action.
3. The objection of claim 11 is withdrawn in light of applicants amendment to the claim.
4. The rejection of claims 1-3,5-22 under 35 U.S.C. 112, second paragraph, is withdrawn.
5. The rejection of claims 1-22 under 35 U.S.C. 103(a) as obvious over CA 771,086 is withdrawn upon further review.
6. The rejection of claim 4 under 35 U.S.C. 112, second paragraph, is maintained. See the new grounds of rejection below.
7. The rejection of claims 1-22 under 35 U.S.C. 103(a) as being unpatentable over Kausch et al. (US 6,123,885) in view of Hutte et al. (US 5,969,008) is maintained for the reasons recited in the non-final rejection dated 6/23/2003.

Response to Arguments

8. Applicant's arguments filed 2/27/2004 have been fully considered but they are not persuasive. Applicants urge that the combination of Kausch et al. (US 6,123,885)

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with that of Hutte et al. is improper because Kausch et al. teach adding a PDMS finishing oil to spun elastane filaments is to improve the take-off properties of the elastane fibers in warping and knitting processes while Hutte et al. teach chlorinated water degrades the fiber not just removes the oil.

Contrary to applicants arguments the combination of Kausch et al. (US 6,123,885) with that of Hutte et al. is proper because the Examiner has established a prima facie case that it is known in the art that PDMS finishing oils are added to elastane fibers and that it is known that chlorinated water can cause premature wear of the PDMS coated textile fibers. Thus, a claim limited by water to remove preparation oils from elastane fibers is not patentable since the prior art of record teach that water in general causes premature wear of PDMS coated textile fibers.

New Grounds of Rejection

Claim Objections

9. Claims 4, 7, 10 and 16 are objected to because of the following informalities:

Claim 4 is objected to because the recitation to "shafts 3" is referencing figure 1 of the specification. This is improper because a method claim cannot refer to an apparatus figure description within the body of the claim.

Claims 7 and 16 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Specifically, the

limitation to the ratio of water to fiber of independent claim 1 is 5 (water) :1 (fiber).

Dependent claims 7 and 16 recite ratios outside of the ratio defined in claim 1.

Claim 10 is objected to because it is dependent on non-existent claim 35.

Appropriate corrections are required.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 4 recites the limitation "rotation of the stirrer" in claim 1. There is insufficient antecedent basis for this limitation in the claim.

12. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bleasdale (CA 771,086) in view of Reinehr et al. (WO 0050673).

Note that although examiner has cited support for the rejection using only the German WO 00/50673 document, please note the US equivalent for purposes of an English translation is 6,830,715.

Bleasdale teaches that oil-based finishes are used on spandex yarns and are applied directly below the spinning cell before winding up the spun filaments on a bobbin. Waste yarn, therefore, usually contains an oil based finish. Bleasdale teaches that if finish removal is desired, the yarn may be washed thoroughly with a suitable organic solvent, and then rinsed with water and dried thoroughly. See page 5, 1st paragraph.

Bleasdale teaches that the step of soaking the yarn prior to agitation is not necessary if sufficiently rapid agitation of the solvent and yarn is available. Suitable agitators include, screw-type and disc-type agitators. Agitation is continued until the yarn is substantially all dissolved. The period of agitation depends on obvious variables, such as the size of the tank, dimension and form of the agitators, viscosity of the solution, and speed of agitation. The speed of agitation is adjusted so that the solution temperature does not exceed 60 degrees Celsius. See page 4, 1st paragraph.

In example 1 on page 8, 2nd paragraph, Bleasdale illustrates a portion of spandex yarn chopped into lengths of about 5 cm are added to dimethylacetamide such that the concentration of yarn is 25%. After a soaking period of 60 minutes, the yarn is agitated for 120 minutes at a temperature of 35 degrees Celsius. The solution is filtered through sheets of cellulose pulp and the filtrate is blended with a fresh batch of spinning solution. See page 8, paragraph 2 and 3.

Bleasdale does not specifically teach the at least 1200 rpm speed of rotation of the mixer or suggest a ratio of 5:1 of water to fiber as recited by the instant claims.

Reinehr et al. teach a process for producing elastane fibres by a spinning process using spinning solutions of elastane waste recycling material having PDMS finishing oil thereon, wherein a) the elastane fibres are chopped up, b) the cut elastane material is dipped into an aqueous spinning bath comprising solvents such as diethylamine, dimethylacetamide, dimethylformamide and combinations thereof, c) the mixture of cut elastane material, aqueous spinning bath is heated at a temperature of 60C. to 150C., operated at 1500 rpm for 30-100 minutes until homogenization. See

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page 1, lines 24-28, page 4, lines 10-29, page 5, lines 5-20 and examples 1 and 2 on pages 12-15. Furthermore, Reinehr et al. provide motivation to one of ordinary skill in the art to optimize the spinning rotation dependent on the required spinning viscosity, which is distinctly higher in the dry spinning process than in a wet spinning process, and can be adjusted via the amine content, the temperature of the solution and the residence time in the heater. See page 9 lines 20-25.

Regarding the apparatus of claims 11-13 and 22, Reinehr et al. teach a device for a device for carrying out the process on various titre of elastane fibers, consisting at least of a heatable mixing tank with an inlet for solid material, a mixer and a dispersing unit, of a mixing zone with static mixing elements, connected downstream of the mixing tank, of a cooling zone with mixing elements and of a filtering unit for subsequently filtering the prepared elastane spinning solution. The dispersing unit consists of one or two, agitated dispersers equipped with screw-type segmented appliances selected from suction cutters, webbed rings, kneading spirals and multiple current appliances. The mixer in the mixing tank is an anchor mixer and the mixing tank is provided with an additional cleaning device for the internal fittings of the mixer. See page. 6, line. 20 through page. 7, line. 15.

Regarding the claim limitation to residual moisture, both Reinehr et al. are silent as to the claimed properties of moisture content being 0.5% to 3% by weight as recited by claims 18-19. However, it is reasonable to presume that said limitations are encompassed by the invention of Reinehr et al. because the presumption is supported by the use of similar materials (i.e. elastane fibers) and in the similar production steps

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(i.e. contacted water) to remove PDMS finishing oil. The burden is upon the applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594.

It would have been obvious to one of ordinary skill in the art to arrive at a process of removing preparation oil from elastane fibers with water spinning at a rate of at least 1200 rpm and in a ratio of 5:1 of water to fiber as recited by the instant claims because the teachings of Bleasdale in view of Reinehr et al. suggest a method of removing PDMS finishing oil from 120 kg of fibrous elastane material with 600 liters of an aqueous solution comprising 78% water spinning at a rate of 1750 rpm. One of ordinary skill in the art would have been motivated to combine the teachings of Bleasdale with that of Reinehr et al. because Bleasdale specifically provide motivation to remove finishing oil by mixing with an aqueous solution and Reinehr et al. suggest the specific speed and ratio of water to fiber in the analogous art of treating elastane fibers with water.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Remaining references cited but not relied upon are considered to be cumulative to or less pertinent than those relied upon or discussed above.

Applicant is reminded that any evidence to be presented in accordance with 37 CFR 1.131 or 1.132 should be submitted before final rejection in order to be considered timely.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Preeti Kumar whose telephone number is 571-272-

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1320. The examiner can normally be reached on M-F 9:00am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Mc Ginty can be reached on 571-272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner Preeti Kumar *PK*
Art Unit 1751

Douglas McGinty
Supervisory Patent Examiner
Art Unit 1751